

Work Order ID 51775

September 3, 2009 7:44:40 AM



Page 1

Item ID: D2893-1

Accept



Setup Start



Revision ID: B

Stop



Item Name: 2.75 Support

Start Date: 9/03/09 Start Qty: 20.00



Cust Item ID:

Required Date: 9/08/09 Req'd Qty: 20.00

Customer:

Reference:

Approvals:

Process Plan:

W

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D2893

Rev B

100

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

Machine as per Folio FA081 Tumble & Deburr

mf
8/9/09

19 1

110

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

mf
8/9/09

19 1

(PT6)

120

0.00



QC8- Inspect parts - second check

QC

Memo

0.00

Quality Control

mf 09/09/17

19 0

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2893-1 PAR #: N/P Fault Category: Prod. Eng. Coord NCR: Yes No DQA: 11 Date: 09-11-06
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: 17 Date: 09-11-17

NCR: 51775		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09.09.09	1050	Test dropped Program error. Tool didn't retract. Large mark in part R.C. programmer error.	CP 09.09.09 per QSI 042	Scrap part. Mark too noticeable. NO replacement. <u>CHANGE PROC</u>	<u>11/09/09</u> <u>11/09/09</u>	<u>11/09/09</u>	CP 09.09.09 per QSI 042	<u>11/09/15</u>

NOTE: Date & initial all entries

Work Order ID 51775

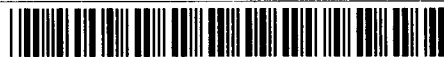
September 3, 2009 7:44:41 AM



Page 2

Item ID: D2893-1

Accept



Setup Start



Revision ID: B

Stop



Item Name: 2.75 Support

Start Date: 9/03/09 Start Qty: 20.00



Cust Item ID:

Required Date: 9/08/09 Req'd Qty: 20.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

M112260



Powdercoat

Memo

0.00

Powder Coating

Mask Inside Bore for Priming ☐ START TIME: 8:30
☐ OVEN TEMPERATURE: 450 ☐ FINISH TIME: 9:00

M-L 09/09/21

19X

140

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

Q.m 09 - 09 - 21 19

150

SprayPaint

0.00



SprayPaint

Memo

0.00

Spray Painting

Prime inside surface as per Dwg D2893 and QSI 005 4.3

09 11 02 19

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 51775

September 3, 2009 7:44:41 AM



Page 3

Item ID: D2893-1

Accept



Setup Start



Revision ID: B

Stop



Item Name: 2.75 Support

Start Date: 9/03/09 Start Qty: 20.00



Cust Item ID:

Required Date: 9/08/09 Req'd Qty: 20.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160 QC14- Inspect Spray Paint

0.00



QC

Memo

0.00

Quality Control

RT 09-11-03

170 Identify as per dwg & Stock Location: *X-13a*

0.00



Packaging

Memo

0.00

Packaging

ml 09 11 03 (19)

180 QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/11/03 *[Signature]*

MF 09-11-03

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

September 3, 2009 7:44:40 AM

Page 1

Work Order ID: 51775



Parent Item: D2893-1RevB



Parent Item Name: 2.75 Support

Start Date: 9/03/09

Required Date: 9/08/09

Comments:

Start Qty: 20.00

Required Qty: 20.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
DSK078RevA		Manufactured	No			100	Each	15.0000	10.0000			
D2893-1 TURNING DETAIL												

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

MAT

15

47395

5

47975

10

mt
09/09/08

10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 51775
Description: Ø2.750 Support		Part Number: D2893-1
Inspection Dwg: D2893	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	2.985	3.005		2.993	2.996	2.999	2.999	2.999
AB	0.440	0.460		.445	.455	.460	.460	.460
AC	0.125	0.160		.134	.134	.134	.134	.134
AD	0.040	0.060		.053	.050	.059	.053	.052
AE	0.188	0.193		.191	.191	.191	.191	.191
AF	0.125	0.160		.138	.142	.141	.139	.140
AG	0.140	0.160		.153	.155	.155	.155	.157
AH	1.360	1.400		1.379	1.375	1.380	1.380	1.380
AI	0.040	0.060		.050	.050	.050	.050	.050
AJ	1.190	1.230		1.219	1.221	1.224	1.220	1.22
AK	0.010	0.020		.015	.015	.015	.015	.015
AL	0.053	0.073		.063	.063	.063	.063	.063
AM	0.240	0.260		.250	.250	.250	.250	.250
AN	2.518	2.538		2.525	2.521	2.532	2.520	2.520
AO	84.39	90.39		87.39	87.39	87.39	87.37	87.37
AP	0.261	0.266		.264	.264	.264	.263	.263
AQ	0.053	0.073		.063	.063	.063	.063	.063
AR				Notch				
AS				in piece				
AT				scrap				
Accept/Reject								

Measured by: m2	Date: 09/09/09
Audited by: [Signature]	Date: 09/09/17
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	[Signature]

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ **First Article**
☐ **Prototype**

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	#6	#7	#8	#9	#10
HAAS Section								
AA	2.985	3.005		3.000	2.997	2.998	2.999	2.999
AB	0.440	0.460		.460	.460	.460	.460	.460
AC	0.125	0.160		.130	.137	.129	.130	.132
AD	0.040	0.060		.050	.050	.050	.052	.052
AE	0.188	0.193		.190	.191	.190	.191	.191
AF	0.125	0.160		.140	.141	.139	.140	.138
AG	0.140	0.160		.160	.160	.160	.155	.159
AH	1.360	1.400		1.382	1.382	1.384	1.380	1.381
AI	0.040	0.060		.049	.049	.050	.050	.050
AJ	1.190	1.230		1.223	1.225	1.223	1.220	1.220
AK	0.010	0.020		.015	.015	.015	.015	.015
AL	0.053	0.073		.063	.063	.063	.063	.063
AM	0.240	0.260		.250	.250	.250	.250	.250
AN	2.518	2.538		2.532	2.532	2.532	2.535	2.525
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		.263	.263	.263	.263	.264
AQ	0.053	0.073		.063	.063	.063	.063	.063
AR								
AS								
AT								
Accept/Reject								

Measured by: *mp* **Date:** 07/09/14

Audited by: *aul* **Date:** 09/09/17

Prototype Approval: **Date:**

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	<i>[Signature]</i>

DART AEROSPACE LTD		Work Order:	
Description: Ø2.750 Support		Part Number:	D2893-1
Inspection Dwg: D2893	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ **First Article**
☐ **Prototype**

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	2.985	3.005		2.997	3.001	2.997	2.998	3.000
AB	0.440	0.460		.460	.460	.460	.460	.460
AC	0.125	0.160		.134	.131	.135	.130	.130
AD	0.040	0.060		.050	.049	.050	.048	.50
AE	0.188	0.193		.191	.191	.191	.191	.191
AF	0.125	0.160		.139	.140	.140	.144	.142
AG	0.140	0.160		.160	.160	.160	.160	.160
AH	1.360	1.400		1.381	1.387	1.382	1.381	1.382
AI	0.040	0.060		.050	.050	.050	.050	.050
AJ	1.190	1.230		1.225	1.220	1.222	1.220	1.223
AK	0.010	0.020		.015	.015	.015	.015	.015
AL	0.053	0.073		.063	.063	.063	.063	.063
AM	0.240	0.260		.250	.250	.250	.250	.250
AN	2.518	2.538		2.521	2.534	2.528	2.524	2.536
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		.262	.262	.264	.262	.264
AQ	0.053	0.073		.063	.063	.063	.063	.063
AR								
AS								
AT								
Accept/Reject								

Measured by: <i>mmf</i>	Date: 01/07/17
Audited by: <i>gml</i>	Date: 01/09/17
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	<i>[Signature]</i>

DART AEROSPACE LTD		Work Order:	
Description: Ø2.750 Support		Part Number: D2893-1	
Inspection Dwg: D2893		Rev: B	
		Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ **First Article**
☐ **Prototype**

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	16	17	18	19	20
HAAS Section								
AA	2.985	3.005		2.999	2.998	2.995	3.000	3.000
AB	0.440	0.460		.460	.460	.460	.460	.460
AC	0.125	0.160		.134	.134	.140	.140	.140
AD	0.040	0.060		.050	.048	.050	.050	.050
AE	0.188	0.193		.191	.191	.191	.191	.191
AF	0.125	0.160		.140	.142	.140	.140	.138
AG	0.140	0.160		.160	.160	.160	.160	.160
AH	1.360	1.400		1.383	1.381	1.381	1.389	1.386
AI	0.040	0.060		.050	.050	.050	.050	.050
AJ	1.190	1.230		1.225	1.222	1.220	1.229	1.222
AK	0.010	0.020		.015	.015	.015	.015	.015
AL	0.053	0.073		.063	.063	.063	.063	.063
AM	0.240	0.260		.250	.250	.250	.250	.250
AN	2.518	2.538		2.521	2.513	2.521	2.523	2.518
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		.263	.262	.264	.264	.264
AQ	0.053	0.073		.063	.063	.063	.063	.063
AR								
AS								
AT								
Accept/Reject								

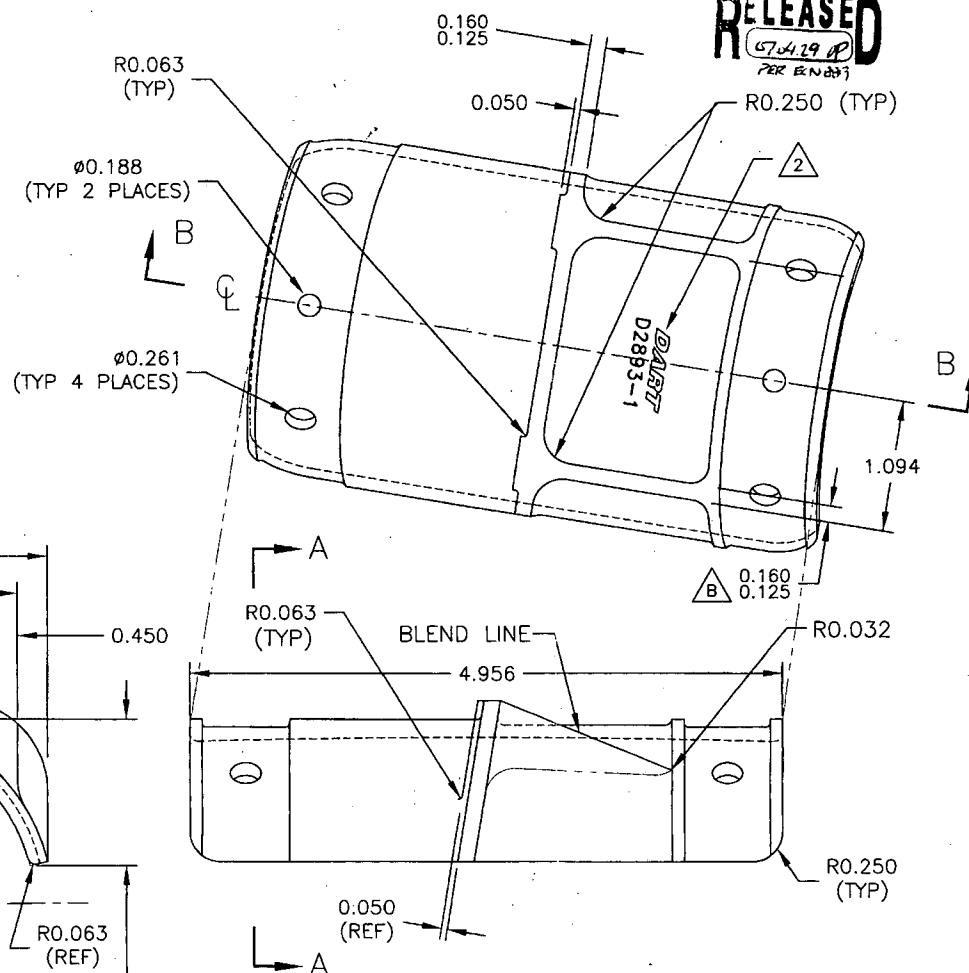
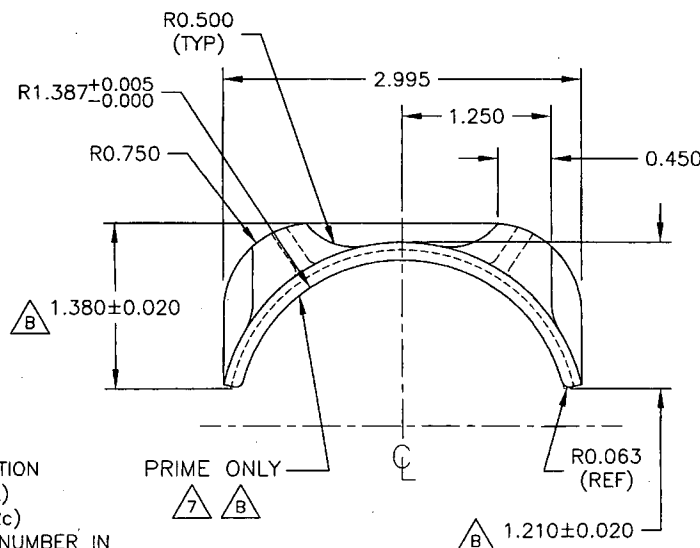
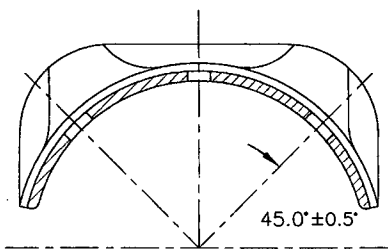
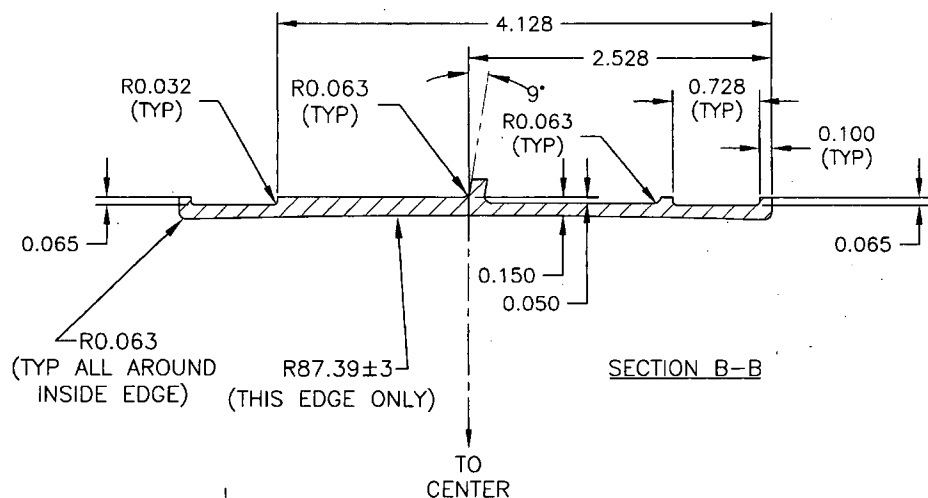
Measured by: MMF
Date: 09/09/17

Audited by: SMK
Date: 09/09/17

Prototype Approval: _____
Date: _____

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	

W/O 5975



D2893-1

- 1) MATERIAL: 17-4 PH STAINLESS STEEL
HEAT TREAT TO H900 CONDITION
(900°F FOR 1 HR, AIR COOL)
MIN UTS = 170 KSI (38 HRC)
- 2) IDENTIFY WITH DART LOGO AND PART NUMBER IN
THIS AREA WITH 0.125 HIGH LETTERING 0.010-0.020 DEEP
- 3) BREAK ALL UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) PART IS SYMMETRIC ABOUT CENTERLINE
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES
- 7) FINISH: POWDER COAT WHITE (REF. 4.3.5.2) PER DART QSI 005 4.3
PRIME INSIDE SURFACE AS SHOWN PER DART QSI 005 4.2

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THAT IT IS NOT TO BE USED FOR ANY PURPOSE
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PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE LTD.

B	07.03.16	UPDATE DIMS AS MFG., PRIME INSIDE
A	01.01.10	NEW ISSUE
DESIGN	97	DRAWN BY
CHECKED	97	APPROVED
DATE	07.03.16	TITLE
		02.750 SUPPORT

DART DART AEROSPACE LTD.
WARRICKSURY, ONTARIO, CANADA

DRAWING NO. D2893
SHEET 1 OF 1

SCALE

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries